

# BIOTECHNOLOGY

## **Recommended Start-up Equipment**

Micropipettors with Plastic Tips - sizes that allow volumes ranging from 10-1000 uL

Horizontal Gel Electrophoresis Units - mini ones are fine, 7 x 8 cm

Power Supply - can be a minimal unit with a maximum of 125V

Glassware - beakers, flasks, graduated cylinders

Microwave

Scale or Balance

Waterbath or Heating Block

Microcentrifuge

Microcentrifuge Tubes

Reagents/Chemicals - will vary depending up on the content

All of this equipment can be purchased through Sargent-Welch and Dave Myers.

The approximate cost of the above equipment is \$3,000-3,500.

## **Links for Biotechnology-related Information**

*These websites have great job/career-related information.*

### **Access Excellence**

[www.accessexcellence.org](http://www.accessexcellence.org)

Provides information on all aspects of biotechnology, including job descriptions.

### **Bio-Link**

[www.bio-link.org](http://www.bio-link.org)

A national program funded by the National Science Foundation. Program focus is workforce training. Site also has lots of job information.

### **Biotechnology Industry Organization**

[www.bio.org](http://www.bio.org)

This is the national trade organization for biotechnology. It is another great website for job information.

### **Utah Life Science Association**

[www.ulsa.org](http://www.ulsa.org)

This is Utah's only trade organization for the biotechnology, bioscience and life science industry.

*These websites give general information about genomics.*

### **Human Genome Project**

[www.nhgri.nih.gov](http://www.nhgri.nih.gov)

This is part of the National Institutes of Health. Contains lots of fun to browse to learn about the human genome project. It is very interactive.

## **Cold Spring Harbor Labs**

[www.cshl.org](http://www.cshl.org)

Once at this site, navigate to their *DNA Learning Center*. This is a fantastic site with pieces on the Human Genome Project and Eugenics. If you don't know what eugenics is...then you can't miss this one!!!

*These three websites are university-sponsored biotechnology centers. Their goal is to promote their centers, but they can be informative with their outreach sections.*

### **Fralin Biotech**

[www.biotech.vt.edu](http://www.biotech.vt.edu)

### **North Carolina Biotech**

[www.ncbiotech.org](http://www.ncbiotech.org)

### **Utah State Biotech**

[www.usu.edu](http://www.usu.edu)

*These two websites are for either private companies or governmental entities that sequence genomes. They are fun to look at to get a feel for, which genomes scientists are interested in for research purposes. We use these in class to look for disease genes and structural information. The Institute for Genomic Research (TIGR) only lists microbial genomes, but it is cool to see, which ones they have sequenced! The National Center for Biotechnology Information (NCBI) lists any sequence that has been done, including those on the TIGR site. It is the endorsed international repository for all sequences.*

### **TIGR**

[www.tigr.org](http://www.tigr.org)

### **NCBI**

[www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)